

CLAIMS

What is claimed is:

- 5 1. A method in a base station of detecting cloned communication units, the
method comprising:
receiving, responsive to a page message, a first response message and a
second response message;
determining whether a first identification field corresponding to the first
10 response message is equivalent to a second identification field corresponding to the
second response message;
when the first identification field is equivalent to the second identification
field, assessing whether one of a first message content and a first message property
corresponding to the first response message is not correlated, respectively, with one
15 of a second message content and a second message property corresponding to the
second response message; and
when the one of the first message content and the first message property is not
correlated, respectively, with the one of the second message content and the second
message property, deciding that one of the first response message and the second
20 response message corresponds to a cloned communication unit.

2. The method of claim 1 wherein the assessing whether the first message
content is not correlated with the second message content further comprises assessing
whether first environmental information is not correlated with second environmental
information, the first and second environmental information corresponding to an
5 environment of a first and second communication unit that is, respectively the source
of the first and the second response message.

3. The method of claim 2 wherein the first and the second environmental
information corresponds to one of a radio environment and a location for,
10 respectively, the first and the second communication unit.

4. The method of claim 3 wherein the radio environment corresponds to one of
signals available and strength of available signals for, respectively, the first and the
second communication unit.

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5. The method of claim 3 wherein the radio environment further comprises a
radio environment report according to a code division multiple access system.

6. The method of claim 1 wherein the assessing whether the first message
20 property is not correlated with the second message property further comprises
assessing whether a first arrival time of the first response message is not correlated
with a second arrival time of the second response message.

7. The method of claim 6 wherein the first and the second arrival time are compared to provide a relative arrival time and when the relative arrival time satisfies a threshold determining that the first message property is not correlated with the second message property.

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8. The method of claim 1 further comprising sending the page message, the page message requiring message content in any response message.

9. The method of claim 1 wherein, responsive to deciding that one of the first
10 response message and the second response message corresponds to the cloned communication unit, the method further comprises denying service to any communication unit corresponding to the first identification field.

10. The method of claim 9 wherein the denying service further comprises sending
15 a text message to the any communication unit corresponding to the first identification field.

11. A call screening unit in a communication system, the call screening unit operable to detect cloned communication units operating in the communication system and comprising:

an input for receiving a first response message and a second response

5 message; and

a processor operable:

to determine whether a first identification field corresponding to the first response message is equivalent to a second identification field corresponding to the second response message;

10 when the first identification field is equivalent to the second identification field, to assess whether one of a first message content and a first message property corresponding to the first response message is not correlated, respectively, with one of a second message content and a second message property corresponding to the second response message; and

15 when the one of the first message content and the first message property is not correlated, respectively, with the one of the second message content and the second message property, to decide that one of the first response message and the second response message corresponds to a cloned communication unit.

20 12. The call screening unit of claim 11 wherein the processor is further operable to assess whether first environmental information is not correlated with second environmental information, the first and second environmental information corresponding to an environment of a first and second communication unit that is, respectively the source of the first and the second response message.

13. The call screening unit of claim 12 wherein the first and the second environmental information corresponds to one a radio environment and a location for, respectively, the first and the second communication unit.

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14. The call screening unit of claim 13 wherein the radio environment corresponds to one of signals available and strength of available signals for, respectively, the first and the second communication unit.

10 15. The call screening unit of claim 13 wherein the radio environment further comprises a radio environment report according to a code division multiple access system.

15 16. The call screening unit of claim 11 wherein the processor is further operable to assess whether a first arrival time of the first response message is not correlated with a second arrival time of the second response message.

17. The call screening unit of claim 16 wherein the processor is further operable to compare the first and the second arrival time to provide a relative arrival time and
20 when the relative arrival time satisfies a threshold determine that the first message property is not correlated with the second message property.

18. The call screening unit of claim 11 wherein, responsive to deciding that one of the first response message and the second response message corresponds to the cloned communication unit, the processor is further operable to initiate denial of service to any communication unit corresponding to the first identification field.

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19. The call screening unit of claim 19 wherein the denial of service further includes the processor operating to initiate sending a text message to the any communication unit corresponding to the first identification field.

20. A base station operable to detect cloned communication units, the base station comprising:

a receiver operable to receive, responsive to a page message, a first response message and a second response message; and

5 a processor operable:

to determine whether a first identification field corresponding to the first response message is equivalent to a second identification field corresponding to the second response message;

when the first identification field is equivalent to the second
10 identification field, to assess whether a first radio environment report corresponding to the first response message is not correlated, respectively, with a second radio environment report corresponding to the second response message; and

when the first radio environment report is not correlated with the second radio environment report, to decide that one of the first response message and
15 the second response message corresponds to a cloned communication unit.

21. The base station of claim 20 wherein the first identification field comprises one of an electronic serial number, mobile identification number, and message sequence number and the first environmental report comprises information
20 corresponding to other radio signals that are available.

22. The base station of claim 21 wherein the processor, prior to the deciding, is further operable to assess whether a relative arrival time corresponding to the first response message and the second response message satisfies a threshold.